The following minute was unanimously adopted:

In view of the fact that General Isaac J. Wistar has served four consecutive years, the limit defined by the By-Laws, as President of the Academy of Natural Sciences of Philadelphia, his fellow members desire to indicate their esteem and affection by a cordial endorsement of the minute of recognition adopted by the Council and to express the hope that the Academy may long profit by the clearness of judgment, the knowledge of affairs and the courtesy of personal intercourse which have been the characteristics of his administration.

Dr. Benjamin Sharp made a second communication on his ethnological studies in Alaska and Siberia. (No abstract).

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January 14.

The President, Samuel G. Dixon, M. D., in the Chair.

Thirty-four persons present.

The death of Samuel G. Lewis, a member, was announced.

A paper entitled "New Species of the Helicoid Genus Polygyra," by H. A. Pilsbry, was presented for publication.

*Pleurotomaria crotaloides Morton in the New Jersey Cretaceous.*—Mr. H. A. Pilsbry exhibited a fossil *Pleurotomaria* from Mullica Hill, New Jersey, found by Henry L. Balderston when on a excursion of the geological class of Westtown School, and submitted to the speaker by Lewis Woolman.

The specimen is an internal cast and has lost the earlier whorls. Enough remains, however, to distinguish it as a strongly marked species, apparently identical with *Cirrus crotaloides* Morton[1], described from Erie, Alabama.

The species has not been noticed since its original publication in 1834, and as Morton's description is very brief (less than three lines long) and involves a grave inaccuracy, and his figure is decidedly uncharacteristic, a more detailed description of the specimen discovered by Mr. Balderston is here given, followed by notes on Morton's type specimen. It may be described as follows:

Pleurotomaria crotaloides Morton. (Plate I).

Shell (cast) rather discoidal, the spire low-conic, base flattened and very broadly umbilicated. Whorls slowly increasing, very convex, separated by deep sutures; the last whorl strongly convex on the upper surface, thence sloping outward to the periphery, which is quite convex again, and near the base of the whorl. Base dis-

[1] Synopsis of the Organic Remains of the Cretaceous Group of the U. S. p. 49, pl. 19, fig. 5.

tinctly flattened, though convex. Umbilicus somewhat exceeding one-third the total diameter, broad, deep and perspective, the sutures within it strongly impressed.

Diameter 7 cm.; width of last whorl at aperture (measured below) 26 mm.; alt. of same about 19 mm.

The surface of the cast is smooth, not showing the impression of the anal fasciole. The sinus was probably short, at least in comparison with the large recent species; but as the latter third of the specimen is largely concealed by a hard arenaceous matrix, no impression of the anal sinus can be made out. The unremoved matrix shows clear impressions (external moulds) of the characteristic Lower and Middle Marl bed species *Plicatula urticosa* Mort. and *Ostræa larva* Lam.

In *Pleurotomaria perlata* Conr., the periphery is more strongly keeled and the umbilicus narrower than in this species. In *Pleurotrema solariformis* Whitf. the whorls are flatter both outside and within the umbilicus, and the slit is said to be bridged at intervals, though this last feature is excessively obscure if present in the type specimen.

The specimen described above is the property of Henry L. Balderston and has for the present been deposited in the museum of the Academy.

The type of *Cirrus crotaloides* Morton is a much smaller shell, alt. 18, diam. 39 mm. It is an internal cast of whitish calcareous material ("rotten limestone"). The last whorl has been broken above near the aperture, and the whorls of spire are slightly distorted on one side by pressure, and have lost considerable material by erosion. The umbilicus is filled to its verge with a calcareo-arenaceous matrix, harder than the cast itself, and a narrowly conic protuberance of the same material projects over the apex. This has been mistaken by Morton for the true spire, which accounts for his words "the two first whorls [sic] suddenly produced." In reality the true apex of the shell is concealed by this bit of hard matrix, about three whorls being visible. The contour of the last whorl is practically identical with that shown in the middle figure of the plate illustrating the Mullica Hill specimen. No impression of the anal sinus or fasciole is visible on the cast.

Erie, the locality where Conrad collected the type of *crotaloides*, is on the Black Warrior River, in the Selma Chalk or "Rotten Limestone" member of the Alabama Cretaceous.

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## January 21.

The President, Samuel G. Dixon, M. D., in the Chair.

Fifty-two persons present.

Papers under the following titles were presented for publication :—